



**BAT INTERNATIONAL METRO**

## PERFORMANCE STATISTICS

### ACCELERATION AT 90% SOC \*

Zero to 30 mph: 8.7 sec  
 Zero to 40 mph: 15.3 sec  
 Zero to 50 mph: 17.7 sec  
 Zero to 60 mph: **35.5 sec**  
 Performance Goal: 13.5 seconds; 0 to 60 mph

### ACCELERATION AT 50% SOC \*

Zero to 30 mph: 9.4 sec  
 Zero to 40 mph: 16.5 sec  
 Zero to 50 mph: 26.0 sec  
 Zero to 60 mph: **43.0 sec**  
 Performance Goal: 13.5 seconds; 0 to 60 mph

### MAXIMUM SPEED

At 50% SOC: **67 mph**  
 Performance Goal: 70 mph

### CONSTANT SPEED RANGE

45 mph Distance: 88.4 miles  
 45 mph Energy Used: 14.5 kWhr  
 45 mph Efficiency: 0.164 kWhr/mile  
 45 mph Specific Energy: 0.0157 kWhr/lb  
 60 mph Distance: 51.6 miles  
 60 mph Energy Used: 11.3 kWhr  
 60 mph Efficiency: 0.219 kWhr/mile  
 60 mph Specific Energy: 0.0122 kWhr/lb

### DRIVING CYCLE RANGE

77°F Distance: **49.50 miles**  
 77°F Energy Used: 11.64 kWhr  
 77°F Efficiency: 0.235 kWhr/mile  
 77°F Specific Energy: 0.0126 kWhr/lb  
 19°F Distance: **33.20 miles**  
 19°F Energy Used: Not Measured  
 19°F Efficiency: Not Measured  
 19°F Specific Energy: Not Measured

Performance Goal: 60 miles

### GRADEABILITY\*

Maximum Grade: 42%  
 Performance Goal: 25%  
 Speed At 3% Grade: 56 mph  
 Performance Goal: 55 mph  
 Speed At 6% Grade: **42 mph**  
 Performance Goal: 45 mph

### HANDLING COURSE

Avg Time @ 90% SOC: 60.9 sec  
 Avg Time @ 50% SOC: 61.3 sec  
 Avg Time @ 20% SOC: 64.5 sec  
 Avg Dodge Neon (ICE) Time: 54.62 sec  
 Average Chevrolet S-10 Time: 58.29 sec

### BRAKING STABILITY

Controlability: No Stability Problems  
 Distance Dry/Wet: 177.2/272.8 feet

### CHARGER

Ground Current During Charge: 3 mA  
 Battery Leakage Current: 0.01 mA  
 Charger Efficiency: 93 %  
 Average Power Factor: **0.54**  
 Performance Goal: 0.95  
 Average THD: **91.1 %**  
 Performance Goal: 5%  
 Time From 80% DOD: **10 hours 40 minutes**  
 Performance Goal: <8 hours

### VEHICLE TYPE

Conversion Of: Geo Metro  
 VIN: 2C1MR2466N6766568  
 Seating Capacity: **2 Adults**  
 Features: Power Brakes, Front Wheel Drive, Front Disk Brakes & Heater

### DIMENSIONS

Wheelbase: 89.4 inches  
 Track F/R: 54.3/53.8 inches  
 Length: 148.3 inches  
 Width: 62.4 inches  
 Height: 52.0 inches  
 Ground Clearance: >50 mm  
 Cargo Space: **Battery Pack Displaces Rear Seat and OEM Cargo Well.**

### WEIGHT

Curb Weight: 2560 lbs  
 Test Weight: 2582 lbs  
 Distribution F/R: 49/51 %  
 Conversion GVWR: 2910 lbs  
 OEM GVWR: 2447 lbs  
 Payload: **328 lbs**

### WHEELS & TIRES

Wheel Size: 13 inch  
 Tire Mfg: Goodyear Invicta  
 Tire Size: P175/70R13  
 Tire Pressure F/R: 44/44 psi  
 Spare Installed: No

### DRIVE SYSTEM

Drive Type: Brush DC  
 Motor Mfg: Advanced DC Motors  
 Controller Mfg: Curtis PMC  
 Transmission: **5 Speed Manual**

### BATTERY

Manufacturer: Trojan  
 Type: **T145 Flooded Lead Acid**  
 Number of Modules: 13  
 Total Traction Voltage: 78 Volts  
 Battery Pack Weight: 923 lbs  
 Locations In Vehicle: Rear Seat & Trunk

### CHARGER

Location: Behind Driver Seat  
 Input Voltage(s): 120 volts AC  
 Input Current(s): 13 amperes AC

### INTERLOCKS

Key Removable When Off Only: Yes  
 Key Off In Park Only: **No**  
 Start In Park Only: **No**  
 Start Blocked By Accelerator: **No**  
 Start Blocked On Charge: **No**

### REQUIREMENTS

Manual Disconnect Present & Operational: **No**  
 Batteries Sealed or Valve Regulated: **No**  
 Charger Automatic Control: Yes  
 SOC Indicator Present: Yes  
 Battery Voltage Indicator: **No**  
 Battery Current Indicator: Yes  
 Regenerative Current Indicator: N/R  
 Transmission Single Speed: **No**  
 Transmission Parking Pawl: **No**  
 No Open Access to High Voltage: **No**  
 All High Voltage Clearly Marked: **No**  
 Control Efforts Similar To OEM: Yes

Test Date: October 1994

### Notes:

**Bold** - Results did not meet EV America Performance Goal  
 \* - Tested at gross vehicle weight  
 N/R - No regenerative braking

### TEST EXCEPTIONS

*Payload 372 lbs less than required*  
*Test weight greater than OEM GVWR*  
*OEM GVWR re-rated by converter (not certified)*  
*Flooded electrolyte batteries*  
*Testing delayed by high battery temperature*  
*Testing delayed by charge times > 8 hours*